

Claims

We claim:

1. An apparatus for use in a no-spill drinking cup, said apparatus comprising:
a valve holder, such valve holder comprising at least one valve, said valve having a resting position and being closed to block the passage of liquid therethrough while in said resting position, said valve being movable into an open position for the passage of liquid therethrough upon the application of negative pressure to the top of said valve.

2. An apparatus for use in a no-spill drinking cup, comprising:
a flexible valve member, said valve member having a closed position and an open position, wherein said valve member sits against a sealing portion when in said closed position such that said sealing portion blocks the passage of fluid through said valve member, and wherein said valve member moves away from said sealing portion to allow passage of liquid though said valve member upon application of negative pressure to said valve member.

3. An apparatus for use in a no-spill cup, comprising:
a flexible valve member comprising an opening in said valve member, said flexible member having a proximal side and a distal side; and
a sealing portion, said sealing portion comprising a first area which is impenetrable to the flow of liquid therethrough, and a second area through which liquid can flow, said

distal side of said flexible valve member resting against said sealing portion when said flexible valve member is in the resting, closed position such that said opening of said flexible valve member rests against said first area when said flexible valve member is in said resting, closed position, said flexible valve member backing off said sealing portion upon the application of negative pressure to said proximal side of said flexible valve member to allow fluid to flow through said second area of said sealing portion and through said opening of said flexible valve member.

4. An apparatus as claimed in Claim 3, wherein said first area is the central area of said sealing portion, and wherein said second area is the peripheral area of said sealing portion.
5. A no-spill drinking cup assembly, comprising:
a flexible valve member, said flexible valve member having an opening therein; and,
a sealing portion, said flexible valve member resting against said sealing portion when said valve member is in its closed position such that said opening sits against said sealing portion to block the passage of liquid through said opening.
6. An assembly as claimed in Claim 5, said flexible valve member further comprising an open position, said flexible valve member being displaced away from said sealing portion in said open position to provide liquid access to said opening, said flexible

member assuming said open position upon application of negative pressure to the top of said valve member.

7. An assembly as claimed in Claim 6, wherein said flexible valve member inverts upon application of negative pressure to said valve member to move said opening away from said sealing portion.
8. An assembly as claimed in Claim 5, wherein said flexible valve member is located in a valve assembly.
9. An assembly as claimed in Claim 8, wherein said valve assembly comprises at least one subunit for containing said valve member.
10. An assembly as claimed in Claim 9, wherein said valve assembly comprises at least two subunits, each of said subunits comprising a valve member therein.
11. An assembly as claimed in Claim 9, wherein said valve assembly comprises at least two subunits, a first subunit comprising a first valve member comprising a first opening, and a second subunit comprising a second valve member comprising a second opening, said first opening being larger than said second opening.
12. An assembly as claimed in Claim 11, wherein said first opening is an "X" shaped slot.

13. An assembly as claimed in Claim 11, wherein said second opening is a "T" shaped slot.
14. An assembly as claimed in Claim 11, wherein said first opening is an "X" shaped slot and said second opening is a "T" shaped slot.
15. An assembly as claimed in Claim 5, wherein said assembly further comprises a removable cap.
16. An assembly as claimed in Claim 5, wherein said cap comprises a valve assembly carrier for securing said valve assembly to said cap.
17. An assembly as claimed in Claim 15, further comprising a cup for attachment to said removable cap.
18. An assembly as claimed in Claim 17, wherein said cap is provided with screw threads for screwing onto said cup.
19. An assembly as claimed in Claim 17, wherein said cap is a snap-on cap, for attachment to said cup.
20. An assembly as claimed in Claim 9, wherein said sealing portion is located in said subunit.

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21. An assembly as claimed in Claim 20, wherein said sealing portion comprises a center seal-off stop, said center seal-off stop comprising a solid central area impenetrable to liquid flow therethrough, and a peripheral region surrounding said central area, said peripheral region having at least one area open to the passage of liquid therethrough.
 22. An assembly as claimed in Claim 21, wherein said opening rests against said central region when said valve member is in its closed position.
 23. An assembly as claimed in Claim 20, wherein said subunit comprises a valve retainer for securing said flexible valve member in said subunit.
 24. An apparatus for use with a no-spill drinking cup, comprising:
a cap for attachment to a cup, said cap comprising a spout;
a valve assembly, at least a portion of said valve assembly being in communication with said spout, said valve assembly comprising at least one flexible valve member having an opening therein, said flexible valve member resting in a closed position in which no liquid can pass through said opening of said valve, said valve moving to an open position to allow the passage of liquid through said valve when negative pressure is applied to said valve through said spout.
 25. An apparatus as claimed in Claim 24, wherein said valve assembly further comprises a sealing portion, said sealing portion comprising a first area and a second area, wherein

said first area is impenetrable to liquid flow therethrough, and said second area allows the passage of liquid through said second area.

26. An apparatus as claimed in Claim 25, wherein said first area is the central area of said sealing portion and said second area is the peripheral area of said sealing portion.
27. An apparatus as claimed in Claim 24, wherein said cap further comprises at least one vent in the surface of said cap to allow the passage of air through said vent.
28. An apparatus as claimed in Claim 24, wherein said valve assembly comprises at least two subunits, said two subunits comprising a first subunit and a second subunit, said first subunit being in communication with said spout, said second subunit being in communication with said vent in said cap.
29. An apparatus as claimed in Claim 23, further comprising a cup.
30. An apparatus as claimed in Claim 24, wherein said cup is attached to said cap.